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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/938,894	08/24/2001	Richard T. Reel	4727	3333

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MILA KASAN, PATENT DEPT.
APPLIED BIOSYSTEMS
850 LINCOLN CENTRE DRIVE
FOSTER CITY, CA 94404

EXAMINER

OLSEN, KAJ K

ART UNIT	PAPER NUMBER
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1753

DATE MAILED: 08/04/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

A 34

Office Action Summary

Application No.

09/938,894

Applicant(s)

REEL ET AL.

Examiner

Kaj Olsen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 14-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4, 7, 5
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of species A, claims 1-13, in Paper No. 8 is acknowledged. Claims 14-25 are withdrawn from further consideration as being drawn to a non-elected invention.

Specification

2. The disclosure is objected to because of the following informalities: On page 11, applicant lists information about a copending application based on attorney docketing information. This should be replaced with an appropriate U.S. application number or, when possible, an appropriate patent or publication number.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

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the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-4, 8, 9, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hofmann (USP 4,911,806) in view of Dahms (USP 4,124,470).

6. With respect to claim 1, Hofmann discloses an analyte manipulation device for moving polarizable analyte of interest that comprises two coextensive, elongated, electrically-conductive members (14, 16) disposed in a fixed, spaced relation within a sample holder 18 (fig. 1, and col. 4, lines 64-66). Hofmann also discloses an AC power source 26 in electrical communication with the members (col. 5, lines 3-22). With respect to the AC power source operable to establish an electric field gradient within the sample holder 18, that is only the intended use of the apparatus and the intended use need not be given further due consideration in determining patentability. However, it would appear the function of the AC power source is for the establishing of an appropriate field gradient (see col. 2-4). Hofmann does not explicitly disclose that the sample holder be adapted for relative movement from a first position to the second position as set forth by the claims. However, configuring a analyte manipulation device such that it could be utilized for a plurality of different containers (i.e. that it can pulled in and out of a particular analyte container) is notoriously well known in the art. In particular, Dahms discloses in an alternate separation device that structure for the manipulation of a particular sample may be configured such that the said structure is useable on a plurality of different sample containing vessels thereby facilitating automated analyzing (fig. 2-4 and abstract). Said structure must be adapted so that it can be moved from first and second positions (i.e. it must be raised and

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lowered into and out of the vessel currently being analyzed) via motors (col. 9, lines 17-20).

Alternatively, the turntable of Dahm (indicated by the arrows of fig. 3 and 6) moves the analyte holders through different positions such that the different analyte holders can be aligned with the said structure. It would have been obvious to one of ordinary skill in the art at the time the invention was being made to utilize the structure of Dahms for the device of Hofmann in order to allow a particular analyte structure to be useable for a plurality of different sample holders and to automate the analysis of the analyte.

7. With respect to claim 2, see Dahms (col. 9, lines 17-20).

8. With respect to claim 3, the turntable of Dahms moves the analyte holder toward and away from the manipulating structure (which in Hofmann are electrically conducting members).

9. With respect to claim 4 (those limitations not addressed above for claim 1), the moveable support of Dahm (col. 4, lines 17-20) supports the said analyzing structure (which in Hofmann are electrically conducting members). With respect to trapping a portion of a polarizable analyte in a concentration zone, that is only the intended use of the apparatus and the intended use need not be given further due consideration in determining patentability. However, that does appear to be the function of the device of Hofmann (see col. 2-4).

10. With respect to claims 8 and 9, the electrically conducting members of Hofmann inherently possesses edges or corners.

11. With respect to claim 11, an innumerable number of features of either Hofmann or Dahms could reasonably be utilized to function as a handle for holding the device.

12. With respect to claim 12, see figure 4 of Dahms.

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13. Claims 5-7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hofmann and Dahms as applied to claim 4 above, and further in view of Goldstein (USP 4,643,814).

14. With respect to the claims, Hofmann and Dahms disclosed all the limitations of the claims, but did not explicitly recite the presence of either resin material or non-conductive filament within the members. Goldstein teaches in an alternate separation device teaches that materials can be placed between electrically conductive members to facilitate the holding of the desired analyte material (col. 4, line 53 through col. 5, line 38). Among the materials contemplated include epoxy resin (col. 12, lines 5-10) and porous non-conductive filaments (e.g. see col. 4, lines 53-66). It would have been obvious to one of ordinary skill in the art at the time the invention was being made to utilize the teaching of Goldstein for the apparatus of Hofmann and Dahms in order to hold the materials that are being sorted.

15. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hofmann in view of Dahm as applied to claim 4 above, and further in view of WO 97/41219 (hereafter "WO '219").

16. The references set forth all the limitations of the claim, but did not explicitly recite the addition of a DC power source for the electrically conducting members. WO '219 teaches that the use of DC voltages allows one to capture DNA from an analyte solution thereby allowing said DNA to be removed from the solution and later replicated or amplified (p. 1, lines 15-24). It would have been obvious to one of ordinary skill in the art at the time the invention was being made to utilize the teaching of WO '219 for the device of Hofmann and Dahm in order to capture the sorted DNA allowing said DNA to be replicated or amplified.

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Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Pohl (USP 4,326,934) also teaches a configuration of conductive electrical members relevant to the structure of the present invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaj Olsen whose telephone number is (703) 305-0506. The examiner can normally be reached on Monday through Thursday from 7:00 AM-4:30 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Mr. Nam Nguyen, can be reached at (703) 308-3322.

When filing a fax in Group 1700, please indicate in the header "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other communications with the PTO that are not for entry into the file of this application. This will expedite processing of your papers. The fax number for regular communications is (703) 305-3599 and the fax number for after-final communications is (703) 305-5408.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist, whose telephone number is (703) 308-0661.



Kaj K. Olsen
Patent Examiner
AU 1753
July 30, 2003